

Serial No.:08/785,047
Group Art Unit No.: 1652

4. (Twice Amended) The isolated polynucleotide of Claim 2 comprising nucleotides 1 to 771 set forth in SEQ ID NO:1.

5. (Twice Amended) The isolated polynucleotide of Claim 2 comprising a polynucleotide encoding the amino acid sequence set forth in SEQ ID NO:2.

7. (Twice Amended) An isolated polynucleotide comprising a member selected from the group consisting of:

(a) a first polynucleotide having at least a [70%] 90% identity to a reference polynucleotide which consisting of a sequence encoding the same mature polypeptide expressed by the FabI gene contained in *Staphylococcus aureus* WCUH 29 contained in NCIMB Deposit No.40771, wherein identity is determined using an algorithm [with default parameters which algorithm is selected from the group] consisting of [BLASTP,] BLASTN [or FASTA] , where the algorithm is adapted to give the largest match between sequences tested, over the entire length of the reference polynucleotide; and of

(b) a polynucleotide which is the complement of the entire length such first polynucleotide of (a).

25. (Amended) An isolated polynucleotide comprising (a) a first polynucleotide, wherein the first polynucleotide is (i) [having at least 95% identity to] a reference polynucleotide consisting of a sequence encoding a polypeptide comprising the amino acids of SEQ ID NO:2, or (ii) identical to the reference polynucleotide, except that over the entire length of the reference polynucleotide there are up to ten amino acid substitutions, additions and deletions [wherein identity is determined using an algorithm with default parameters which algorithm is selected from the group consisting of BLASTP, BLASTN or FASTA,] ; or (b) the complement of the entire length of such first polynucleotide.

Serial No.: 08/785,047
Group Art Unit No.: 1652

27. (Amended) The isolated polynucleotide of Claim 25 wherein the isolated polynucleotide is DNA.

28. (Amended) The isolated polynucleotide of Claim 25 wherein the isolated polynucleotide is RNA.

34. (Amended) An isolated polynucleotide comprising (a) a first polynucleotide, wherein the first polynucleotide is (i) [having at least a 95% identity to] a reference polynucleotide sequence consisting of a sequence encoding the same mature polypeptide expressed by the Fab I gene contained in NCIMB Deposit No. 40771, or (ii) identical to the reference polynucleotide, except that over the entire length of the reference polynucleotide there are up to ten amino acid substitutions, additions and deletions [wherein identity is determined using an algorithm with default parameters which algorithm is selected from the group consisting of BLASTP, BLASTN or FASTA,] ; or (b) the complement of the entire length of such first polynucleotide.

35. (Amended) A vector comprising the isolated polynucleotide [DNA] of Claim 34, wherein the isolated polynucleotide is DNA.

39. (Amended) An isolated polynucleotide comprising (a) a first polynucleotide, wherein the first polynucleotide is (i) [having at least a 97% identity to] a reference polynucleotide consisting of a sequence encoding a polypeptide comprising amino acids of SEQ ID NO:2, or (ii) identical to the reference polynucleotide, except that over the entire length of the reference polynucleotide there are up to five amino acid substitutions, additions and deletions [wherein identity is determined using an algorithm with default parameters which algorithm is selected from the group consisting of BLASTP, BLASTN or FASTA,] ; or (b) the complement of the entire length of such first polynucleotide.

Serial No.: 08/785,047
Group Art Unit No.: 1652

40. (Amended) An isolated polynucleotide comprising (a) a first polynucleotide, wherein the first polynucleotide is (i) [having at least a 97% identity to] a reference polynucleotide consisting of a sequence encoding the same mature polypeptide expressed by the Fab I gene contained in NCIMB Deposit No. 40771, or (ii) identical to the reference polynucleotide, except that over the entire length of the reference polynucleotide there are up to five amino acid substitutions, additions and deletions [wherein identity is determined using an algorithm with default parameters which algorithm is selected from the group consisting of BLASTP, BLASTN or FASTA,] ; or (b) the complement of the entire length of such first polynucleotide.

41. (Amended) A vector comprising the isolated polynucleotide [DNA] of Claim 40, wherein the isolated polynucleotide is DNA.

46. (Amended) An isolated polynucleotide comprising a DNA sequence obtained by screening a *Staphylococcus aureus* strain WCUH29 DNA library containing the complete gene encoding an amino acid sequence set forth in SEQ ID NO:2 under stringent hybridization conditions with a polynucleotide probe having a polynucleotide sequence set forth in SEQ ID NO:1 or a fragment thereof, which fragment is a 17-mer or longer, wherein stringent hybridization conditions means that hybridization will occur only if there is at least 95% identity between the sequences, where identity is determined using an algorithm consisting of BLASTN where the algorithm is adapted to give the largest match between sequences tested, over the entire length of the polynucleotide sequence or fragment thereof.

47. (Amended) The isolated polynucleotide of claim 1, which hybridizes under stringent conditions to a second reference polynucleotide consisting of the sequence of SEQ ID NO:1 or to the complement of the entire length of such second reference polynucleotide, wherein stringent conditions means that hybridization will occur only if there is at least 95% identity between the sequences, where identity is determined using an algorithm consisting of BLASTN where the